

Pollution Prevention Fact Sheet

Marinas & Boatyards

Utah Department of Environmental Quality

Promoting a Healthy Environment

One of Utah's most treasured and alluring natural resources is its rivers and waters. Not only do they play an integral role in maintaining our own prosperity and quality of life, but our waterways are critically important to Utah's water supply, fish and wildlife and their habitats. Adverse environmental impacts can result from pollutants generated by everyday marina operations. Therefore, every marina owner or manager who wants to prosper should become environmentally aware and working to protect and clean up the waterways.

Pollution prevention utilizes source reduction and environmentally sound recycling to reduce or eliminate these impacts. Marinas can achieve a variety of benefits including lower operating costs, improved worker safety, and increased customer satisfaction through pollution prevention. In addition, the use of pollution prevention strategies and techniques is essential for marinas to meet the requirements of federal and state nonpoint source pollution and storm water programs.

HULL MAINTENANCE

Paint Removal

There are a number of alternatives to the commonly used chemical strippers. These alternatives may be less toxic as well as less expensive. Mechanical sanders and scrapers equipped with vacuums are effective at removing paint in a way that prevents migration of debris and residue. High pressure water jet stripping can be used and incorporated with technologies to recycle the used water. When using chemical stripping agents, substitute less toxic agents or use a smaller volume of the present agent. Solvent strippers can be recycled using an onsite still as well as offsite solvent recovery services. Operating procedures and employee training can help minimize the amount of agent that is used.

Paint Stripping Technology

Factors that should be taken into consideration when selecting a paint-stripping technology include hull construction, type of paint to be removed, volume and characteristic of waste generated and the cost of waste disposal.

Painting Operations

High volume, low pressure (HVLP) painting equipment can reduce paint emissions as well as improve paint application and minimize cost. Air-assisted airless and electrostatic application

equipment are environmentally sound alternatives to high-pressure spray. Proper training and instruction of the spray paint operators will also reduce paint emissions. Evaluate less-toxic substitutes for antifouling paints to prevent or minimize marine growth on boat hulls. For surfaces not emerged in water (interiors) use water-based paints instead of solvent-based paints.

Performing the Activities

It is essential that work areas are organized and best management practices are set up to further eliminate or reduce the creation of pollution at the source. Work should occur in an enclosed work area to minimize contaminated runoff. Containment pads with dikes of impervious surfaces (concrete) should be installed to reduce over spray and prevent contamination. If unavailable, plastic sheeting can be used temporarily to create a containment pad.

Boat Cleaning

Activities performed in the slip or dockside can present water quality problems. Less toxic substitutes such as phosphate-free and biodegradable soaps are readily available. More frequent cleaning with fresh water using a soft, non-abrasive sponge can minimize growth and prolong the life of hull coatings. Cleaning activities should be scheduled during the boating off-season. Under no circumstances should in-water hull scraping and paint removal activities be allowed.

Good Housekeeping

Regularly schedule work area inspections as well as yard cleanups should be performed on a timely basis. Properly designed work areas for chemical storage will minimize the potential for spills. Storage areas should have restricted access and provide for the containment of spills and leaks. Drums and other containers should be in good condition and kept tightly closed when not in use.

ENGINE REPAIR AND MAINTENANCE

Spent Engines

To reduce the volume of waste as well as improving the recycling capability, individual waste streams should be collected in separate containers and segregated from other waste streams including trash and debris.

Waste Solvents

Hazardous wastes from solvent cleaning operations can be completely eliminated by switching to an alternative cleaning method such as an aqueous cleaning system. Waste solvents can be recovered by using an onsite distillation unit as well as offsite solvent recovery services. Citrus-based cleaners are also an effective alternative.

Good Housekeeping

Worn parts and scrap metal can be sold to a parts manufacturer or metal recycler. Boat batteries can be recycled along with nonhazardous waste such as cardboard, plastic and aluminum. Proper housekeeping and spill control methods will help eliminate spillage of engine fluids and solvents. Drip pans can be used for product recovery and to prevent loss or runoff.

FUEL STATION ACTIVITIES

Fueling operations are a common source of water pollution due to overfills and spills. Marinas can prevent such accidents by developing a spill prevention plan. The plan should address proper procedures and maintenance of fuel station equipment. Fuel pump nozzles should be equipped with automatic back pressure shut-off valves to prevent overfilling the fuel tank. The use of fuel/air separators on fuel tank vents will further prevent fuel overflows.

Good Housekeeping

Fuel storage tanks should be properly designed and periodically tested to check the integrity of the system. Storage systems should have secondary containment. Overflow alarms on tanks can further reduce the chances of spilling. Accurate fuel storage record keeping can be used to verify that fuel is not being lost through leakage.

BOATER EDUCATION

Recycling Facilities

It is essential to provide recycling facilities for all types of solid waste such as plastic, glass, aluminum, and paper.

Encourage boaters to use recyclable products to reduce the solid waste impact on the environment. Recycling areas should be conveniently located and easily identifiable.

Designated Areas

Designate well maintained areas that include covered receptacles for non-recyclable solid wastes specifically for boat maintenance and repair. Identify storm drains located throughout the marina area in order to prevent the dumping of waste materials. Provide separate recycling opportunities for used oil and antifreeze.

Fishing Services

An area should be established for cleaning fish. Sound fish waste management practices, including proper fish waste disposal, should be established.

Policies

Policies can address proper boat maintenance procedures, waste recycling, and disposal and be established in a lease or contract with boaters.

Promotion

Newsletters, notices on monthly bills, postings and informal visits with boaters can further promote the benefits of pollution prevention. Topics such as proper disposal of marine sanitation devices, less toxic hull maintenance materials and recycling will continue to remind boaters about environmental protection.

For More Information, Contact:

Division of Solid & Hazardous Waste- (801) 538-6170.
Environmental Hotline (800) 458-0145
Pollution Prevention Coordinator (801) 536-4477

U:\SHW\SPB\JRICARD\WP\boatfact.wpd